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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896.059	06/29/2001	Debashis Bhattacharya	162.7107USU	9475

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EXAMINER

THOMPSON, ANNETTE M

ART UNIT PAPER NUMBER

2825

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/896,059	<b>Applicant(s)</b> BHATTACHARYA ET AL.	
	<b>Examiner</b> A. M. Thompson	<b>Art Unit</b> 2825	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9, 11-19, 21-36, 38-44, 46-52, 54-59 and 61-78 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 3-9, 11-19, 21-29, 70-72 and 78 is/are allowed.
- 6) ☒ Claim(s) 31-36, 38-44, 46-52, 54-59, 61 and 74-77 is/are rejected.
- 7) ☒ Claim(s) 2, 30, 62-69 and 73 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2005 and 06 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09 May 2006 has been entered.

2. Claims 1, 2, 11, 12, 21, 22, 30-32, 39, 40, 47, 48, 54, 55, 62, 78 are amended. Claims 1-9, 11-19, 21-36, 38-44, 46-52, 54-59 and 61-78 are pending.

### ***Claim Objections***

3. Claims 2, 30, 32, 40, 48, 55-59, 61-69, 73 and 77 are objected to because of the following informalities: Pursuant to claims 30, 55-59, 61-69, 73 and 77, at line 1, before "storage medium", insert - -computer readable- -. Pursuant to claims 2, 32, 40, 48, 55 before "cell usage" delete the hyphen. Pursuant to claim 30, after "transistor", delete the hyphen(-). Pursuant to claim 62, before "usage" delete the hyphen.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 31-36, 38-44, 46-52, 54-59, 61, 74-77 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly

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claim the subject matter which applicant regards as the invention and also for lacking proper structural functional relationship between claim elements.

6. Pursuant to claim 31, 39, 47, and 54, the functional relationship between “design metric” and the rest of the claim is unclear. It must be established, apriori, that the optimizing step uses or requires a design metric before there is a recitation of the design meeting a design metric. (e.g. the step could recite “automatically optimizing said IC design, wherein said optimizing is repeated until said IC design meets at least one design metric, *the design metric being used in said step of optimizing*”). Pursuant to claims 44 and 59, change “criteria” to - -said design metric- - for proper structural/functional relationship. Further to claim 44, at line 4, it is unclear what the selection “a combination thereof” references. Each selection in the alternative grouping is referenced separately and stands alone and applicant must specifically indicate what “a combination thereof” is intended to mean.

***Allowable Subject Matter***

7. Claims 1-9, 11-19, 21-36, 38-44, 46-52, 54-59 and 61-78 contain allowable subject matter.

8. The following is a statement of reasons for the indication of allowable subject matter: In an automated method for designing integrated circuits, the prior art does not teach or suggest dynamically generating at least one design-specific cell, representative of a predefined cell in a functional block, wherein the design-specific cell is generated, characterized and optimized at the transistor netlist level based on a design objective of the integrated circuit design.

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**Conclusion**

9. Any inquiry concerning this communication or earlier communications should be directed to Examiner A.M. Thompson whose telephone number is (571) 272-1909. The Examiner can usually be reached Monday thru Friday from 8:00 a.m. to 4:30 p.m..

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10. Responses to this action should be mailed to the appropriate mail stop:

Mail Stop \_\_\_\_\_

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

or faxed to:

(571) 273-8300, (for all **OFFICIAL** communications intended for entry)

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